LISTING OF CLAIMS:

1. (PREVIOUSLY PRESENTED) An adaptive recording method used with an optical recording medium, the method comprising:

forming a mark using a multiple pulse train comprising a first pulse, a multi-pulse having a peak power level, and a last pulse;

adapting a power level of the first pulse relative to the peak power level of the multi-pulse depending on a correlation between the mark and a previous space;

adapting a power level of the last pulse relative to the peak power level of the multi-pulse depending on a correlation between the mark and a next space; and

driving a recording unit with the multiple pulse train having the adapted power levels.

2. (CANCELLED)

3. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising adapting the power level of the multi-pulse depending on a density of a non-return-to-zero inverted (NRZI) signal which defines the mark and the spaces.

4. (ORIGINAL) The method of claim 1, wherein the recording unit is a laser diode.

5. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the power level of the first pulse is adaptable to be higher or lower than the peak power level of the multi-pulse.

6. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising:

further adapting the power level of the first pulse depending on a size of the mark.

7. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising:

adapting the power level of the multi-pulse depending on the size of the mark.

8. (PREVIOUSLY PRESENTED) The method of claim 5, further comprising:

further adapting the power level of the first pulse depending on the size of a current mark.

9. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the power level of the last pulse is adaptable to be higher or lower than the peak power level of the multi-pulse.

10. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising: adapting the power level of the last pulse depending on a size of the mark.

11. (PREVIOUSLY PRESENTED) The method of claim 9, further comprising: further adapting the power level of the last pulse depending on a size of the mark.

12. (PREVIOUSLY PRESENTED) The method of claim 10, further comprising: adapting the power level of the multi-pulse depending on the size of the mark.

13 – 17 (CANCELLED)

18. (PREVIOUSLY PRESENTED) A method of controlling recording a signal on an optical disc, the method comprising:

providing a multiple pulse train for recording a mark on the optical disc, the multiple pulse train comprising a first pulse, a multi-pulse having a reference power level, and a last pulse; and

controlling a power level of said last pulse independent of a power level of said first pulse.

19. (ORIGINAL) The method according to claim 18, wherein the power levels of the first and last pulse are controlled by selecting a peak power level $P_{w,}$, a power P_{wh} higher than the peak power level $P_{w,}$, or power P_{wl} lower than the peak power level P_w to be generated during the first and last pulses.

20. (ORIGINAL) The method according to claim 19, wherein P_w is an optimum peak power level and P_w and P_{wl} are generated by adding or subtracting a predetermined value to or from the optimum peak power level P_w, respectively.

21. (ORIGINAL) The method according to claim 18, wherein said multi-pulse reference power level is greater than said first pulse power level and less than said last pulse power level.

22. (ORIGINAL) The method according to claim 19, wherein said multiple pulse trains further comprises a second multi-pulse train having a first pulse, a multi-pulse having a

reference power level, and a last pulse, wherein the power level of said multi-pulse of said second multi-pulse train is less than said first pulse power level of said second multi-pulse train and greater than said last pulse power level of said second multi-pulse train.

23. (ORIGINAL) The method according to claim 22, wherein said multiple pulse trains further comprise a third multi-pulse train having a first pulse, a multi-pulse having a reference power level, and a last pulse, wherein the power level of said multi-pulse of the third multi-pulse train is equal to said first pulse power level of said third multi-pulse train and great than said last pulse power level of said third multi-pulse train.

24. (PREVIOUSLY PRESENTED) A method of controlling recording marks on an optical disc using multiple pulse trains comprising first, second and third multi-pulse trains each having a first pulse, a multi-pulse having a reference power level, and a last pulse, the method comprising:

providing a different reference power level to each multi-pulse train depending on the energy or density of a non-return-to-zero inverted (NRZI) signal detecting a correlation between a current mark and a space between successive marks.

25. (ORIGINAL) The method according to claim 24, wherein the power level of the first and last pulse of each of said first, second and third multi-pulse trains is higher or lower than said reference power level.

26. (ORIGINAL) The method according to claim 18, wherein the power level of said multi-pulse is controlled independent of said first and last pulses.

27. (PREVIOUSLY PRESENTED) A method of forming a mark on an optical recording medium, the method comprising:

generating a recording pulse train comprising a first pulse, a multi-pulse having a peak power level, and a last pulse;

adapting a power level of at least one of the first pulse and the last pulse relative to a peak power level of the multi-pulse depending on a correlation between the mark and one of a previous space and a next space, respectively; and

driving a recording unit with the recording pulse train to record the mark on the optical recording medium.

28. (PREVIOUSLY PRESENTED) The method of claim 28, further comprising:

adapting the peak power level of the multi-pulse depending on a size of the mark.

29. (PREVIOUSLY PRESENTED) A method of forming a mark on a recording medium in response to an NRZI signal defining a current mark, a previous space and a next space, the method comprising:

determining a correlation between the current mark and the previous space;

determining a correlation between the current mark and the next space;

determining a size of the current mark;

generating a recording pulse train for the current mark comprising a first pulse, a multi-pulse having a peak power level, and a last pulse;

adapting the recording pulse train for the current mark by selecting one of a plurality of recording pulse variations based on the correlations and the current mark size, the plurality of recording pulse variations comprising:

adapting only the first pulse depending on the correlation between the current mark and the previous space,

adapting only the last pulse depending on the correlation between the current mark the next space,

adapting the first and last pulses depending on the size of the current mark,

adapting the first pulse, the multi-pulse and the last pulse depending on the size of the current mark,

adapting the first pulse, the multi-pulse and the last pulse to correspond to predetermined power levels without regard to the correlations or the size of the current mark,

adapting the first pulse based on the correlation between the previous space and the current mark and adapting the last pulse based on the correlation between the current mark and the next space,

adapting only the last pulse depending on the size of the current mark, and

adapting the first and last pulses relative to the multi-pulse depending on the correlations and adapting the multi-pulse power level relative to a predetermined value depending on the size of the current mark; and

driving a recording unit with a recording pulse train adapted according to the selected pulse train variation to record the current mark on the optical recording medium.